

## John Watson and Emotional Conditioning

Several years after Pavlov's early experiments, psychologist John Watson appeared on the scene. While he was working his way through school, one of his jobs was to take care of laboratory rats. Gradually the rats became Watson's pets and friends. One of his favorite pastimes was to teach them all kinds of tricks. The rats were able to find their way through elaborate mazes he built, to solve problems such as the need to dig through obstacles he had put in their path, to act as construction workers in tunnels he started for them, and so forth. Based on his observations, Watson eventually decided that what seemed to be the rats' complex behavior actually resulted from little more than a series of stimuli and responses, rather than from some exotic concept such as "intelligence." Watson went even further to suggest that at the human level, "deep emotions" are also just the result of association and learning. One of his most famous experiments involved trying to get a human to spread (or generalize) the emotion of fear from one object to another; this, he thought, would demonstrate that emotions can be mechanically induced (Cohen, 1979).

Watson's work in this area has concerned many people because of the ethics involved in how he dealt with a child. His research would never be allowed today, but since he did it, we might as well discuss it rather than let it go to waste. A woman who worked at the same clinic as Watson did would bring her child with her while she was working. Unknown to the mother, Watson started a series of conditioning experiments with the child. This 11-month-old is now famous in psychology and is known as "Little Albert."

Before describing what happened to Little Albert, we need to give you some background information on fear. An unexpected loud noise makes anyone's heart race. We don't have to *learn* to be startled

or afraid. It happens automatically. So, a sudden loud noise is an unconditioned stimulus for the unconditioned response of fear.

Watson put a white laboratory rat into the room with Albert. Albert loved the furry creature and played with it. While Albert played, Watson sneaked up behind him and smashed a steel bar with a hammer near the boy's ear, creating a horrible, startling noise. Albert fell forward, crying and burying his face in a mattress on the floor. The next time he reached for the rat, Watson repeated the crashing noises. Little Albert became terrified of the rat. Here is the situa-

Watson then went on to demonstrate what is called **stimulus generalization**, which means that a response can spread from one specific stimulus like the white rat to other stimuli resembling the original one in some way. To show this had occurred, Watson brought in a white rabbit, which also frightened Albert. Albert even showed some concern about a fur coat and a mild negative response to a Santa Claus mask, objects somewhat similar to the white rat.

Before the mother discovered these goings on and fled with Albert, Watson had shown two things: (1) conditioning of emotions to neutral objects is possible and (2) a conditioned emotion can gen-



▲ Just like Little Albert this child is not too happy with Santa Claus.